



1774
MAIL STOP NON-FEE
AMENDMENT
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: E. Claeys Attorney Docket No.: ARNO118771
Application No.: 10/069,866 Group Art Unit: 1774
Filed: July 8, 2002 Examiner: M.L. Dixon
Title: STRENGTHENING LAYER FOR USE IN COMPOSITES TO BE FORMED
BY MEANS OF VACUUM TECHNIQUE

RESPONSE TRANSMITTAL LETTER

Seattle, Washington 98101

January 16, 2004

TO THE COMMISSIONER FOR PATENTS:

A. Response Transmittal

Transmitted herewith is response in the above-identified application.

X No additional claim fee is required, as shown below.

COMPUTATION OF FEE FOR CLAIMS AS AMENDED

	Claims Remaining After Amendment		Highest Number Previously Paid For		Present Extra		Rate		Additional Fee
Total Claims	23	-	32	=	0	x	18	=	0
Independent Claims	2	-	4	=	0	x	86	=	0
TOTAL									\$0

B. Additional Fee Charges or Credit for Overpayment

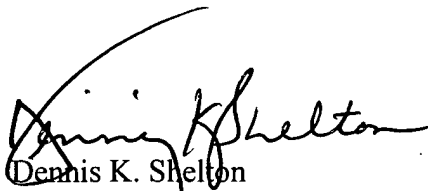
The Commissioner is hereby authorized to charge any fees under 37 C.F.R. §§ 1.16, 1.17 and 1.18 which may be required during the entire pendency of the application, or credit any overpayment, to Deposit Account No. 03-1740. This authorization also hereby includes a request

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for any extensions of time of the appropriate length required upon the filing of any reply during the entire prosecution of this application.

Respectfully submitted,

CHRISTENSEN O'CONNOR
JOHNSON KINDNESS^{PLLC}


Dennis K. Shelton
Registration No. 26,997
Direct Dial No. 206.695.1718

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Date:

1/16/2004



Carole Julian

DKS:cj

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RESPONSE TO PAPER NO. 9

Seattle, Washington 98101

January 16, 2004

TO THE COMMISSIONER FOR PATENTS:

In response to the Office Action mailed October 16, 2003, please reconsider the above-identified application in view of the following remarks.

Claims 1-18 and 21-24 are pending in this application and stand rejected. Applicant respectfully requests reexamination and allowance of Claims 1-18 and 21-24.

The Rejection of Claims Under 35 U.S.C. § 103(a)

The Examiner has rejected Claims 1-18 and 21-24 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 4,942,013 (Palmer et al.). Claim 1, from which Claims 2-18 and 21-24 depend, is directed to a strengthening layer for composites comprising a resin to be formed by means of a vacuum technique, comprising a strengthening material and a plurality of transport threads of substantially round and substantially form-retaining cross-section for guiding the resin therealong, wherein said threads lie substantially in the direction of the resin transport. According to the Examiner, Palmer et al. discloses a strengthening layer comprising a strengthening material and a plurality of thread material. The Examiner has submitted that the thread material would guide the resin during its formation, in the absence of unexpected results.

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Applicants submit that the Examiner has failed to establish a prima facie case of obviousness. There are three requirements for establishing a prima facie case of obviousness. First, there must be some suggestion or motivation, either in the reference itself or in knowledge generally available to one of ordinary skill in the art, to modify the reference. Second, there must be a reasonable expectation of success. Third, the prior art reference must teach or suggest all the claim limitations.

Carter et al. discloses the use of bleeder layers in the manufacture of strengthening layers using vacuum techniques. *See, e.g.*, Carter et al., Abstract; Column 3, lines 31-37; Column 4, lines 59-61; Column 7, lines 11-19. As described in the present application, these bleeder layers are intermediate layers inserted between the strengthening layers to allow resin transport using simple moulds and the vacuum technique. Specification, page 1, lines 25-31. However, there are several disadvantages associated with the use of bleeder layers. For example, they cause unnecessary weight, thickness, resin and material consumption. Specification, page 1, lines 31-34. Moreover, bleeder layers leave behind a resin-rich location in the end product, thereby creating the danger of air inclusion. Specification, page 1, line 34 to page 2, line 2. For these reasons, the bleeder layers are stripped from the finished composite after curing such that the finished strengthening layer does not include a bleeder layer. *See, e.g.*, Carter et al., Column 9, lines 34-39; Column 13, lines 45-48. See also Column 8, line 40, Column 9, line 36, Column 10, line 48, referring to the bleeder layer as "sacrificial."

In contrast, the present invention circumvents the need for bleeder layers. According to the invention, resin transport is achieved by using transport threads of substantially round and substantially form-retaining cross-section, which lie substantially in the direction of the resin transport. These transport threads form part of the finished strengthening layer. There is no motivation or suggestion in Carter et al. to use transport threads instead of bleeder layers to

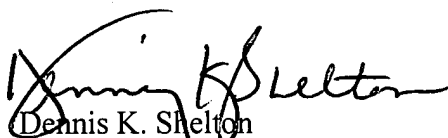
achieve resin transport. Furthermore, there is no motivation or suggestion in Carter et al. to use transport threads as part of the strengthening material. Moreover, Carter et al. does not disclose or suggest transport threads of substantially round and substantially form-retaining cross-section. Nor does Carter et al. disclose or suggest transport threads that lie substantially in the direction of resin transport. Therefore, Carter et al. does not disclose, suggest, or otherwise provide motivation to arrive at the claimed invention, and Claims 1-18 and 21-24 of the present application are not obvious in view of this reference within the meaning of 35 U.S.C. § 103. Accordingly, applicant respectfully requests withdrawal of this ground for rejection.

Conclusion

In view of the foregoing remarks, applicant respectfully submits that Claims 1-18 and 21-24 are in condition for allowance. If any issues remain that may be expeditiously addressed in a telephone interview, the Examiner is encouraged to telephone applicant's attorney at the number listed below.

Respectfully submitted,

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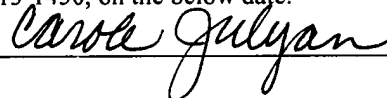


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